

Application No.: 10/781174  
Amendment dated: May 12, 2008  
Reply to Office action of Feb. 12, 2008

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1 (currently amended). Cooking apparatus comprising:  
an enclosure having a food support for an article of food to be cooked, and a fuel support for solid fuel, the supports ~~being~~ having food supporting and fuel supporting areas respectively, said areas being displaced from each other sufficiently that cooking of a food article on said food supporting area by fuel on said fuel supporting area can take place, at least in substantial part, as a result of contact between said food article and hot gas produced by combustion of said fuel;  
an inlet opening for flow of air into the enclosure;  
an impeller arranged to cause air to flow, through said inlet opening, from the exterior of said enclosure into the interior thereof, and to impinge upon solid fuel on said fuel supporting area;  
an electric motor arranged to operate the impeller;  
a first temperature sensor for sensing the temperature of the atmosphere within said enclosure in the vicinity of an article of food on said food support, and providing a first output signal;  
a second temperature sensor for sensing the internal temperature of a food article on said food support and providing a second output signal;

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a controller, responsive to said first output signal, for controlling operation of said electric motor, said controller causing the impeller to increase the flow of air into the interior of said enclosure with decreasing temperature of said atmosphere and to decrease said flow of air with increasing temperature of said atmosphere, whereby said atmosphere is maintained substantially at a set point temperature;

said controller being also responsive to said second output signal for reducing said set point temperature as the internal temperature of said food article increases, at a and regulating, over an interval of time, the rate at which the set point temperature is reduced in dependence ~~depending~~ on the internal temperature of said food article as sensed by said second temperature sensor, said interval of time beginning with a time at which ~~after~~ the internal temperature of said food article reaches a predetermined level.

2(previously presented). Cooking apparatus according to claim 1, in which said controller includes a manually operable adjuster for setting a target temperature for the internal temperature of the food article, and reduces said set point temperature gradually toward a level exceeding said target temperature by a predetermined amount.

3(previously presented). Cooking apparatus according to claim 1, in which said controller includes a first manually operable adjuster for setting a target temperature for the

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internal temperature of the food article, and reduces said set point temperature gradually toward a level exceeding said target temperature by a predetermined amount, and a second manually operable adjuster for setting a maximum temperature for said atmosphere within said enclosure.

4(previously presented). Cooking apparatus according to claim 1, in which said enclosure has an internal wall, and including a deflector for directing a stream of air from said impeller along said internal wall toward said fuel supporting area, whereby said stream of air is prevented from reaching said first temperature sensor before said stream of air reaches fuel on said fuel supporting area.

5(original). Cooking apparatus according to claim 1, in which said controller controls said flow of air by alternately switching electrical power to said electric motor on and off, and causes the impeller to increase and decrease said flow of air by varying the duty cycle of said electric motor.

6(original). Cooking apparatus according to claim 1, in which said controller controls said flow of air by establishing sequentially repeating fixed intervals of time, and alternately switching electrical power to said electric motor on once and off once in each such fixed interval of time, and causes the impeller to increase and decrease said flow of air by varying the proportion of each such fixed interval of time during which electrical power to said electric motor is switched on.

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7(currently amended). Cooking apparatus according to claim 1, in which ~~said enclosure, when closed, is substantially free of openings other than, when said enclosure is closed, the only opening in said enclosure through which substantial amounts of external air can flow to said fuel supporting area, is said inlet opening, thereby avoiding paths for convective flow of external air to said fuel supporting area.~~

8(currently amended). Cooking apparatus comprising:  
an enclosure having a food support and a solid fuel support;  
an inlet opening for flow of air into the enclosure;  
an impeller arranged to cause air to flow into the enclosure through said inlet opening and impinge upon solid fuel on said solid fuel support;  
a first temperature sensor for sensing the temperature of the atmosphere within said enclosure in the vicinity of an article of food on said food support;  
a second temperature sensor for sensing the internal temperature of said article of food on said food support;  
a controller, responsive to said first temperature and said second temperature sensor, for operating said impeller, said controller causing the flow of air toward said solid fuel to maintain the temperature of said atmosphere within said enclosure substantially at a set point determined by the internal temperature sensed by said second temperature sensor, and, by regulating the operation of said impeller over an interval of time, reducing

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said set point as said internal temperature increases, at a rate depending on the internal temperature of said food article as sensed by said second temperature ~~sensor~~ after sensor, said interval of time beginning with a time at which the internal temperature of said food article reaches a predetermined level.

9(previously presented). Cooking apparatus according to claim 8, in which said controller includes a manually operable adjuster for setting a target temperature for the internal temperature of the food article, and reduces said set point temperature gradually toward a level exceeding said target temperature by a predetermined amount.

10(previously presented). Cooking apparatus according to claim 8, in which said controller includes a first manually operable adjuster for setting a target temperature for the internal temperature of the food article, and reduces said set point temperature gradually toward a level exceeding said target temperature by a predetermined amount, and a second manually operable adjuster for setting a maximum temperature for said atmosphere within said enclosure.

11(original). Cooking apparatus according to claim 8, in which said enclosure has an internal wall, and including a deflector for directing a stream of air from said impeller along said internal wall toward said fuel supporting area, whereby said stream of air is prevented from reaching said first temperature sensor before it reaches fuel on said fuel support.

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12(original). Cooking apparatus according to claim 8, in which said controller controls said flow of air by operating said impeller intermittently.

13(original). Cooking apparatus according to claim 8, in which said controller controls said flow of air by establishing sequentially repeating fixed intervals of time, and operating said impeller intermittently during a portion of each said fixed interval of time, and causing the impeller to increase and decrease said flow of air by varying the proportion of each such fixed interval of time during which impeller is operated.

14(currently amended). Cooking apparatus according to claim 8, in which ~~said enclosure, when closed, is substantially free of openings other than, when said enclosure is closed, the only opening in said enclosure through which substantial amounts of external air can flow to said fuel supporting area, is said inlet opening, thereby avoiding paths for convective flow of external air to said fuel supporting area.~~

15-21 (cancelled)

22(new) Cooking apparatus according to claim 1, in which said controller includes a manually operable adjuster for setting a target temperature for the internal temperature of the food article, and in which said predetermined level of the temperature of said food article is a temperature below said target temperature and differing by the same

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predetermined amount from the target temperature as set by said manually operable adjuster for any setting of said manually operable adjuster.

23(new) Cooking apparatus according to claim 9, in which said controller includes a manually operable adjuster for setting a target temperature for the internal temperature of the food article, and in which said predetermined level of the temperature of said food article is a temperature below said target temperature and differing by the same predetermined amount from the target temperature as set by said manually operable adjuster for any setting of said manually operable adjuster.

24(new). Cooking apparatus comprising:

an enclosure having a food support for an article of food to be cooked, and a fuel support for solid fuel, the supports being having food supporting and fuel supporting areas respectively, said areas being displaced from each other sufficiently that cooking of a food article on said food supporting area by fuel on said fuel supporting area can take place, at least in substantial part, as a result of contact between said food article and hot gas produced by combustion of said fuel;

an inlet opening for flow of air into the enclosure;

an impeller arranged to cause air to flow, through said inlet opening, from the exterior of said enclosure into the interior thereof, and to impinge upon solid fuel on said fuel supporting area;

an electric motor arranged to operate the impeller;

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- a first temperature sensor for sensing the temperature of the atmosphere within said enclosure in the vicinity of an article of food on said food support, and providing a first output signal;
- a second temperature sensor for sensing the internal temperature of a food article on said food support and providing a second output signal;
- a manually operable control for selecting a target temperature for the internal temperature of the food article;
- a controller, responsive to said first and second output signals and said manually operable control, for controlling the duty cycle of said electric motor, and causing said electric motor to operate substantially continuously until the temperature of the atmosphere within the enclosure reaches a predetermined level, thereafter causing the electric motor to operate at a first duty cycle depending on the temperature of said atmosphere, as sensed by said first temperature sensor, to maintain the temperature of said atmosphere at a substantially constant level until the internal temperature of the food article, as sensed by the second temperature sensor, reaches a temperature below, by a fixed amount, a target temperature selected by means of said manually operable control, and thereafter regulating the duty cycle of the electric motor in response to the internal temperature of the food article, thereby causing the temperature of said atmosphere to decrease gradually at a rate depending on the internal temperature of the food article.